

**What is claimed is:**

1. A method of extruding a mixture made of a granulate, chips, or powder, etc. of a first thermoplastic and a second thermoplastic, the melting range of the first thermoplastic differing from the melting range of the second thermoplastic, using an extruder which has a heatable housing and a screw, which has an intake zone, a melting zone, a delivery zone, and a hole, extending from the intake zone up to the delivery zone, into which a temperature control medium may be introduced, wherein the temperature control medium causes heating of the screw in the intake zone to a temperature below the melting range of the thermoplastic having the lower melting range and temperature control of the screw in the delivery zone to a temperature which lies between the melting ranges of the first thermoplastic and the second thermoplastic.

2. The method according to Claim 1, characterized in that the first thermoplastic is a polyethylene homopolymer and the second thermoplastic is a copolymer of ethylene.

3. The method according to Claim 1, characterized in that the screw is heated to a temperature between 20 and 60°C in the intake zone.

4. The method according to Claim 1, characterized in that the screw is kept at a temperature of 95 to 110°C in the region of the delivery zone.

5. The method according to Claim 1, characterized in that a mixture made of 70-90 weight-percent polyethylene homopolymer and 30-10 weight-percent copolymer of ethylene is mixed, melted, and extruded in the extruder.

6. The method according to Claim 1, characterized in that a copolymer of ethylene is used whose comonomer component is between 8 and 35%.

7. The method according to Claim 2, characterized in that an ethylene butyl acrylate (EBA), an ethylene ethyl acrylate (EEA), or an ethylene methyl acrylate (EMA), each having an acrylate monomer content of 8 to 35 weight-percent, is used as the copolymer of ethylene.

8. The method according to Claim 1, characterized in that both thermoplastics are poured into the extruder in granulated form.

9. The method according to Claim 1, characterized in that the hole of the screw is divided into two chambers, the first chamber extending from the intake zone up to the first third of the melting zone, and the second chamber extending up into the delivery zone.

10. The method according to Claim 9, characterized in that the temperature control medium for the first chamber is temperature controlled to a preselectable temperature in a first temperature control devices and the temperature control medium

for the second chamber is temperature controlled to a preselectable temperature in a second temperature control device.

11. The method according to Claim 1, characterized in that the polymer mixture contains a peroxide component of 1 to 3 weight-percent.